IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

United States Patent No. 5,784,808 Issued: 28 July 1998

Inventor: Stan Hockerson, a U.S. citizen, of Albuquerque, NM

Assignee: Hockerson-Halberstadt, Inc. (a Louisiana corporation)

FOR: "Independent impact suspension athletic shoe"

ATTORNEY DOCKET NO.: A09027US (99413.1)

Declaration of Richard E. Backus

I, Richard E. Backus, have been a registered patent attorney since 1965. My registration number is 22701.

For over 30 years I have represented Stan Hockerson in patent matters, including payment of maintenance fees. For around 18 years I have also represented Johan Halberstadt, and their company Hockerson-Halberstadt, Inc. ("HHI"), in patent matters, including payment of maintenance fees.

Since at least as early as around 1998, when the above-referenced patent issued, I have kept my docket myself. I keep my docket in a Mac Panorama Database. When a patent issues, it is my practice to enter the three maintenance fee deadlines as separate entries. As the deadline for paying a maintenance fee nears, I send a letter to my client reminding my client of the deadline and offering to pay the fee on behalf of my client. When the fee is paid, I remove the entry relating to that fee.

I was first contacted about non-payment of the second maintenance fee due in the abovereferenced patent on or about 6 January 2009 by Seth M. Nehrbass, a patent attorney who is assisting Hockerson-Halberstadt, Inc. in litigation relating to the above-referenced patent.

Somehow, the docket entries for the second and third maintenance fees for the abovereferenced patent do not appear in my current docket.

I have investigated what may have happened. Unfortunately, it appears that the last activity in this file was probably in January 2002, over seven years ago, so I cannot remember what might have occurred back then. The following information is based on my written records.

On or about 3 January 2002 I sent a letter dated 3 January 2002 to Stan Hockerson (a copy of that letter is attached hereto as Exhibit A) regarding the maintenance fee due in January 2002. Stan Hockerson authorized payment of the 3.5-year maintenance fee through me by sending me his check no. 3219 dated 12 January 2002 (copy attached as Exhibit B). The 3.5-year maintenance fee was then paid on 18 January 2002.

I have found a copy of my docketing database that was saved on June 12, 2008. It is the earliest that I could find. I did a sort of the Client field for H.H.I. from which I produced the accompanying printout (Exhibit C) showing only three entries at that time for this client.

Also enclosed is a printout (Exhibit D) of my current H.H.I. database which has additional entries for the three maintenance fees due in U.S. Patent No. 7,111,415, which issued last September.

I believe the two docket records will support the proposition that for the c1ient's U.S. Patent No. 5,784,808 I had entered all three dates for paying maintenance fees for years 3.5, 7.5 and 11.5, and that the entry for year 7.5 was somehow unintentionally discarded through a docketing error. This appears from the following:

- 1. It has been and is now my practice to docket the dates for all three maintenance fees when the patent issued. This is evidenced by the two entries on the enclosure for H.H.I.'s U.S. Patent No. 6,273,827; they docket the dates for both 7.5 and 11.5 year fees. In that patent the maintenance fee for the 3.5 year was paid Feb. 14, 2005;
- 2. The current H. H. I. docket printout with the three due dates entered for U.S. Patent No. 7,111,415 shows that my docketing practice of initially entering all three dates for issued patents has continued up to last year.
- 3. Apparently the 11.5 year entry for U.S. Patent No. 5,784,808 was also deleted through a docketing error, possibly at the same time the 7.5 year entry was deleted. In my docket system it is possible to delete multiple entries for a single patent at one time.

I did not intentionally fail to pay the second maintenance fee in the above-referenced

patent. The failure to pay the second maintenance fee in the above-referenced patent was unavoidable and was due to a docketing error.

I have been a registered patent attorney since 1965. In all those years, I have never had a docketing error relating to a maintenance fee except for the one relating to U.S. Patent No. 5,784,808. Because I have never before had a docketing error of this sort, I have never felt the need to periodically check the status of patents for which I am responsible.

Treatment Of HHI's Business As Most Important

Stan Hockerson and Johan Halberstadt, and later their company HHI, have been one of my most important clients from the time I first began doing Messrs. Hockerson and Halberstadt's patent work over 30 years ago. Throughout that time I considered the inventions which they made, the patent applications which I prepared for them, and the maintenance of the resulting patents to be a very important aspect of their business. Their business has been based on patents covering their inventions in the athletic shoe field, and many major athletic shoe companies, such as Nike, Brooks and Adidas, have taken licenses under important HHI patents. Thus I treated that work for them to be as important as the most important business in my career as a patent attorney.

Awareness Of Requirement To Pay Maintenance Fees And To Keep Reliable Docketing System

Since the time that US Patent laws and rules were instituted requiring periodic maintenance fees for keeping patents in force, and up to the present time, I have personally been aware of the need to pay maintenance fees for that purpose, and also of the need to keep a reliable docketing system to remind myself and in turn the client when the fees become due. Familiarity Of And Experience With Docketing Systems

From the time that the US Patent maintenance fee requirements began up to the year 2001 when I withdrew and formed my own law firm, I was a partner in the patent law firm of Flehr, Hohbach, Test, Albrittion & Herbert ("FHTAH"). Throughout that time the FHTAH firm had a docketing system with which I was throughly familiar. During the middle part of the 1990's I

was appointed by the FHTAH firm's management committee to investigate and choose a newer docketing system that would have more capabilities.

The FHTAH firm's docketing system comprised a computer and software provided by a supplier, and it included the docketing of maintenance fees. That docketing system was highly reliable, and I was not aware of any computer or software problems in the system during my tenure at the FHTAH firm.

Reliability And Error-Free Performance Of Panorama Database Used With MacIntosh Computer

At least as early as around 1998 I began preparations to withdraw from the FHTAH firm and establish my own law firm as a sole practitioner. As a part of the preparation I set up my own docketing system using a MacIntosh computer. I decided to make the system and computer separate from the FHTAH firm's docketing system so that, when ready to withdraw, I could make a smooth transition to the new practice. The new system included a Panorama Database software which could run on my MacIntosh computer. I began inputting data into the Mac Panorama Database for cases of the various clients I was responsible for while at the FHTAH firm. I found that the Panorama Database's performance was equal to that of the firm's docketing system in that the Panorama Database showed itself to also be highly reliable and error free.

Computer Hardware

The hardware for running the Panorama Database comprises an Apple iMac G5 tower computer having a Power PC processor running at 2 GHz with 512 Mb DDR SDRAM memory, 512 Mb Cache and 233 Gb RAM memory. The computer's operating system is OS X. This hardware has been highly reliable in that it has never crashed while running the Panorama Database since I first began its use, under an earlier Apple OS (operating system), in 1998. Moreover, none of the many Apple computers that I have used since 1980 have ever been invaded by computer virus attacks.

Panorama Database Software

The Panorama Database software is made and sold by ProVUE Development Co. of Huntington Beach, California. Copies of pages 1 and 2 from the handbook for Panorama version 3 software which I have are attached as Exhibit E. As explained in that handbook the software provides a professional quality database for small or large docketing systems. Because the software creates data records stored in the host computer's own RAM memory, then the capacity of data storage is limited only by the size of that RAM memory. Thus, my iMac G5 computer with its 233 Gb of RAM could store, depending on the size of each record, tens of thousands of data records. Not only is such a storage capacity more than adequate for my relatively small size client base, but it is also more than adequate for even the largest law firm that may have one-thousand or more clients. Also, with the larger users, such as those having multiple computers in the same location, or offices in different cities or states, Panorama Database enables the sharing of data across computers.

The Panorama database further enables very fast memory access because of fast RAM based technology having an industry standard SQL server for co-ordinating data sharing. The software provides what is called "SuperObject" technology which enables the user to build the most complicated forms with prebuilt elements such as checkboxes, pop-up menus, scrolling lists, matrices, scalable text, hypertext, and text editing. Any SuperObject that is built by the user allows automatic linking to any field or variable. Reports such as docket listings can be printed on custom paper, or selectively printing desired pages.

With Panorama any number of fields can be used to build the user's docket, and they can placed be in any desired order. I used the software to build seven fields having these headings: 1) Due Date, 2) Client, 3) Action, 4) File, 5) Pat/Reg/SN, 6) Title/Mark, and 7)Cty/Remarks. For each record (displayed as a single horizontal line of entries) entry of data into the fields is simple and fast. The software enables rapid sorting, display and printout in any one or in multiple fields. There is also a rapid search capability which will automatically look for, find and display records

in any desired order. For example, one can search in the Client field for all "HHI" records, then from those displayed search in the Action field for those records having "Maint Fee" and then from those displayed search in the "Due Date" field for those records in the year 2009.

The rapid sort and display capability is demonstrated by my Panorama's use in another database having almost 6,000 records for which any field can be sorted and records for all fields then available for display in about 0.5 seconds.

Panorama further has built-in security to keep information from being accessed and used by unauthorized people, either those that may be inhouse or outsiders attempting to gain entry via the internet.

Use of Panorama Database By Various Professionals and Businesses

The Panorama Database for MacIntosh computers has been in widespread use by the legal and other professional and business fields since at least about 1985. The database's speed, large data capacity and reliability are among the reasons for this widespread usage. Another reason many firms, businesses and sole proprietors chose Panorama is that it enables the rapid sharing of data across multiple computers which may be in a single office, or in a business's different offices, or even with authorized users that may be in a different company. Though I am not personally aware of any other patent attorneys who use the Panorama Database for MacIntosh computers to docket their patent and trademark deadlines, I understand other attorneys use the Panorama Database (see Exhibit F).

The basis for my statement concerning Mac databases being in widespread use stems from information from Panorama's source, ProVue Development and a number of independent reviewers as well as testimonials by users. The ProVue web site www.provue.com explains that they are the second oldest (after Microsoft) still-existing software company in the entire computer industry (Macs as well as PCs) as they go back to the early 1980s. The site also explains that Panorama is also in use in by PC owners. Also explained is Panorama's superiority over its closest competitor, FileMaker (screen shot copies with the title Panorama vs FileMaker

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are attached as Exhibit G). On the home page the paragraph beginning "For over 25 years .." has the links Panorama User Testimonials (featuring smaller companies) and Panorama Enterprise Testimonials (featuring larger companies) (see Exhibit H, page 3). Other testimonials are under the heading Why Does a RAM Based Database Make a Difference? (screen shot attached as Exhibit I). Another link to an independent reviewer's Seeing The Light With Panorama article is attached as Exhibit J.

Experience And Skill Level Of Person That Input Data Into Panorama Database

Soon after beginning its use I became well skilled in the Mac Panorama Database to the extent that no errors were made in inputting or manipulating data on it until the single instance in which the two records for the 7.5 and 11.5 due dates for patent 5,784,808 somehow dropped out of the database.

Procedure To Verify Completeness, Reliability And Integrity Of The Data Entered

After each entry of data for new records of a patent's maintenance fee due dates, I printed out a hard copy of the complete docket due dates for patent 5,784,808. That hard copy was then checked to verify that the new data was correctly entered. Periodically, at about every one-month period, I routinely made back-up files of the complete Panorama Database for use as an archive to insure preservation of the data should any data error be identified. The archive was also made to enable any individual or gross loss of the data to be restored. Throughout the entire period in which the Panorama Database was in use, there never was any such data error or gross data loss identified, except for the error that recently came to light involving HHI's Patent 5,784,808. Inability to locate backups earlier than June 2008

I am unable to locate backups of my docket earlier than June 2008

- 1) When a new backup DVD (or CD in earlier times) was made, I threw away the old one as I considered that it had accomplished its job and was no longer needed.
 - 2) I did not backup on tape, remote servers or other media.
 - 3) I am aware that files that are "deleted" from a hard disc may still be there, unless they

are overwritten. However, in this case I do not believe any database files during or prior to mid 2007 exist on my hard disc. This is because I purchased a new Mac (PowerPC G5 - my present one) in mid 2007 and copied the docket database (and many other files) from the old to the new computer. The old computer with its hard drive was then discarded.

Process Used For Inputting Due Dates Into Panorama Database

At least during and since 1998 my usual practice upon issuance of a patent to a client was to immediately input three new maintenance fee records; the input for the first new record's "Due Date" field was the 3.5 year date, that for the second new record was the 7.5 year date, and that for the third new record was the 11.5 year date. The purpose was that should the 3.5 year fee be paid then the 7.5 and 11.5 due dates would remain as future reminders without the need to add the latter two records.

Evidence That HHI Data Was Correctly Entered

In the case of my client HHI's patent 5,784,808 I am of the belief that, upon issuance of the patent on July 28, 1998 I correctly docketed the three records for the maintenance fee 3.5, 7.5 and 11.5 due dates. This belief is based on the fact that prior to the 3.5 year due date I sent a letter dated Jan. 3, 2002 to Stan Hockerson of HHI stating that the "patent has come up on our docket to remind you that the first maintenance fee must be paid by the due date of Jan. 28, 2002, or the patent will lapse." The client then instructed me that the fee be paid, which I accomplished. Thus, since the 3.5 fee was correctly docketed, the 7.5 and 11.5 fees would have also been docketed in accordance with my usual docketing practice.

How Error May Have Occurred

While I do not specifically remember how the error occurred in deleting the records of maintenance fee due dates for patent 5,784,808, there are several possible explanations. One could have occurred at the time I deleted the 3.5 year due date record after that maintenance was paid to the PTO. In doing so I could have inadvertently selected all three records (3.5, 7.5 and 11.5 year due dates) and then hit the delete button so all three were discarded. Another could

have been when a patent for another client had expired (such as by having that client decide to not pay a maintenance fee) and then when I went into the database to delete the records for such other patent I mistakenly selected and deleted the ones for HHI's patent 5,784,808.

Unavoidability Of The Data Loss Was Due To Human Error

During my tenure at the FHTAH firm I became aware of several docketing problems due to mistakes by docketing clerks hired by the firm. In my experience such mistakes are human errors which are occasionally encountered in any field of endeavor that involves humans making decisions or taking any actions, such as the inputting or manipulating of data in computers, no matter how well trained the person may be. A good example is from several years ago in which a NASA space flight failed because a highly trained rocket scientist erroneously input into the craft's computer a force of gravity value based on the English ft/s² instead of the required metric m/s². Such human errors are in my experience unavoidable over the span of time.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the patent.

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Richard E. Backus, Patent Attorney

Registration number 22701

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LAW OFFICES OF RICHARD E. BACKUS

Richard E. Backus Kristin Hansen, Of Counsel Patent, Trademark and Copyright Law THE MONADNOCK BUILDING 685 MARKET STREET, SUITE 490 SAN FRANCISCO, CALIFORNIA 94105 Tel: 415-979-9876 info@rbackus.com www.rbackus.com Fax: 415-974-6199

Jan 3, 2002

Stan Hockerson 6718 Mossman Place, N.E. Albuquerque, NM 87110

Re: Independent Impact Suspension Athletic Shoe Patent #5,784,808 A-59987-3

Dear Stan:

This patent has come up on our docket to remind you that the first maintenance fee must be paid by the due date of Jan 28, 2002, or the patent will lapse.

This patent issued under the "small entity" fee status on the basis that you had less than 500 employees, and that there was no other entity having more than 500 employees which had a license or other rights under the patent. If the status has changed such that any of your licensees have more than 500 employees, then we are obligated to advise the Patent Office for purposes of calculating the maintenance fee. Assuming that the small entity status of this patent is still appropriate then the costs and services for paying the maintenance fee will be \$1,030 (\$880 PTO fee plus our \$150 service fee).

Please advise if you wish us to pay the maintenance fee. If we do not hear from you by the due date we will take no further action in this matter and the patent will lapse. Because of the size of the PTO fee, we will require advance payment of the total to pay the maintenance fee on your behalf.

Very truly yours,

Richard E. Backus

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STAN HOCKERSON 02/01 6718 MOSSMAN PL. NE 505-875-1947 ALBUQUERQUE, NM 87110 PAY TO THB ORDER OF The Business Professional Stank 2500 Louisiers Blod, NE & 1509) 872-1530 ABAGININA NM 8711D MEMO Latent re issue & reneared AMAGININA NM 8711D	3219 -02 \$ /030 DOLLARS 1
FRB DENVER 1620-0019-9 11/2/42 12100035845 1070-0019-9 11/2/45 12100035845 12100035845 12100035845 12100035845 12100035845 121000358	LAM OF SCHOOL BUTCHES & COMMENCE BUCHUS

Check Image - 01/22/2002

Exhibit C - Backus Declaration

Due Date	Client	Action	File	Pat/Reg/SN	Title/Mark	Cty/Remarks
02/14/09 04/21/09 02/14/13	Н, Н. І.	Maint Fee 7.5 Maint Fee 11.5 Maint Fee 11.5	A64613-1 A59873-1 A64613-1	5678327	Golf Putter Head Shoe Gait Adapting Golf Putter Head	

Exhibit D - Backus Declaration

Due Date	Client	Action	Fle	Pat/Reg/8N	Title/Mark	Cty/Remarks
02/14/09	H. H. 1.	Maint Fee 7.5	A84613-1	8273827	Golf Putter Head	
04/21/09		Maint Fee 11.5	A59873-1	5878327	Shoe Galt Adapting	
03/26/10		Maint Fee 3.5	A59990-1	7111415	Athletic Shoe Frame	
02/14/13		Maint Fee 11.5	A64613-1	6273827	Golf Putter Head	
03/26/14		Maint Fee 7.5	A59990-1	7111415	Athletic Shoe Frame	
03/26/18		Maint Fee 11.5	A59990-1	7111415	Athletic Shoe Frame	

Introduction

WELCOME TO PANORAMA 3

Congratulations! You are about to get acquainted with Panorama 3, a powerful yet easy to use tool for database application development. With Panorama 3 you can rapidly build professional quality database systems for small or large jobs.

What's New?

Panorama 3 extends the features and capabilities of our popular Panorama II application. This supplement covers the new features in both Panorama 2.1 and Panorama 3. Some of the new features are listed below. (All features are new in Panorama 3 except for Panorama 2.1 features which are marked 21)

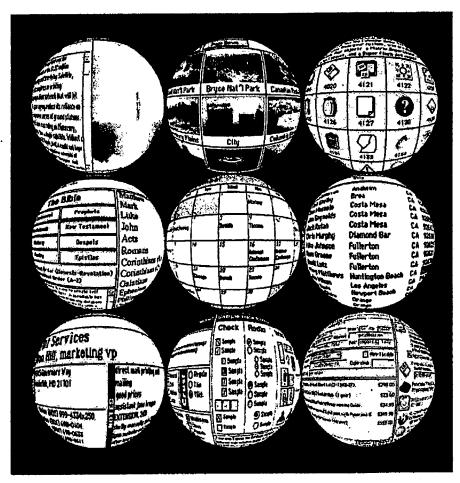
Client/Server—Panorama 3 introduces a whole new dimension in client/server database management. Instead of a "dumb" client that simply displays forms and allows data to be edited, our Partner/Server™ system combines the best of Panorama's incredibly fast single user RAM based database technology with an industry standard SQL server for co-ordinating data sharing across multiple computers. (This feature requires an optional SQL server, sold separately. The Client/Server system is documented in the separate Panorama Partner/Server Handbook, which is included with your optional SQL server software.)

SuperObjectsTM—Our new SuperObject technology allows you to rapidly develop even the most complicated forms with prebuilt elements like 3D buttons and checkboxes, popup menus, scrolling lists, matrices, scalable text, scalable/scrollable pictures, hypertext, text editing and word processing. Any SuperObject can be automatically linked to any field or variable, and most have dozens of options for controlling the appearance and operation of the object. Now you can create virtually any user interface you want.

Word Processing—Panorama 3 includes full built in word processing, with multiple fonts/styles/sizes in a single data cell, four tab stop styles, over 16 different text styles, multiple colors, discontiguous and rectangular selections, and mail merge.

Graphics/Forms—Improvements include the ability to use up to 256 colors in a form²¹, Quick Time support²¹, Balloon Help²¹, customizable tool palette, graphic Control Strip with instant display of object specifications and pop-up menus for patterns, colors, fonts, sizes, and more.

Elastic Forms—Panorama 3 can automatically resize and rearrange the elements of a form as the window containing the form is



resized or zoomed. The form adapts automatically to different window sizes.

Reports—Custom paper sizes (including DayRunner/DayTime organizer notebook pages)^{2,1}, printing text, word processing, or pictures that are longer than a single page, selectively printing different pages of a multipage form.

Duplicates—The new Select Duplicates command makes it easy to find and eliminate duplicate records.

AppleScript—Now Panorama can work with and exchange data with other applications automatically. AppleScript can access and modify Panorama windows, fields and variables, and can launch Panorama procedures (macros). Panorama procedures can also launch an AppleScript as part of their operation.

Programming Language—Panorama's programming language has been vastly upgraded with over 100 new statements and over 100

new functions. New features include permanent variables, improved loop control, parameters to subroutines, pause/resume, direct form manipulation, and more access to the Macintosh toolbox. There are also new data types for arrays, superdates (combined date and time), graphic elements (points, rectangles, colors) and more.

Development Tools—Panorama 3 includes a built-in interactive debugger, complete cross-reference tools, and improved procedure editing.

Import/Export—Data can be rearranged and processed on the fly as it is being imported, and database columns can be matched by field name instead of position.

Security—Panorama 3's built-in, flexible security system safeguards your data automatically but does not interfere with authorized database use. (The security system is documented in the Panorama Security Handbook, sold separately.)

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How to Use This Supplement

This supplement does not stand entirely on it's own, but is designed to be used with other documents, including the original Panorama II Handbook. Other documentation available for Panorama 3 includes:

Penerana il Handbook: Most of the material in the Panorama II Handbook is still valld, with this supplement simply describing the new capabilities available in Panorama 2.1 and Panorama 3.

Panorama Partner/Server Handbook: This document describes how to set up the multi-user Panorama/SQL Server system. The Panorama Partner/Server Handbook is supplied when you purchase the optional SQL server.

Penorama Security Handbook: This document describes how to set up a secure databases with Panorama 3. You may purchase this handbook separately direct from ProVUE.

Panorama Real World Programming Guide: The Panorama 3 Real World Programming Guide shows how to put together all the elements necessary for a professional quality database. You'll get a solid foundation in Panorama programming fundamentals and clear-cut directions on how to handle dozens of specific realworld situations like: lookup up and posting data to multiple databases, trapping illegal data entry, creating and using menus, displaying negative numbers in red, extracting and converting data, calculating date and/or time intervals, synchronizing multiple databases, accessing data created in other programs, centering a window on the screen, line item import/export/analysis, combining numbers with text, building and displaying a list of items in a field, drag and drop and much more. The Guide is filled with literally hundreds of program examples, and includes a diskette with dozens of sample databases that illustrate the topics covered in the book. You may purchase the Guide separately direct from ProVUE.

Panorama Programmer's Assistant CD-ROM: This CD-ROM contains detailed information on every statement, function, SuperObjectTM and data type available in Panorama; far more information than we could ever include in printed documentation. Related information is tied together with abundant hypertext links, making it easy to locate all the information you need in seconds, or you can go directly to any topic from the keyboard. Each entry for every function and statement includes a wealth of information including a detailed description of operation and parameters, possible errors and how to avoid and/or handle them, detailed, and real world example programs illustrating how each function or statement is used. The example programs are hot linked so you can click

on any statement or function in an example to jump immediately to the page describing that statement or function. You may purchase this CD-ROM separately direct from ProVUE.

Typographic Conventions

Throughout this supplement we've used various typographic conventions to help make the material clearer. Whenever a Panorama function is mentioned it is always in italics and followed by a single opening parenthesis, for example the date(function. The parenthesis indicates that one or more parameters follow.

Program and formula examples are shown in small Helvetica type, for example:

export "Chacks Archive",
str("Chacks"+)+--+
datepattern(ChackDate, "MM/DD/YY")+--+
PeyTo+--+
Category+---+
str(Debit)+---+
str(Credit)+||

When referenced in the text, procedure statements are always listed in bold italic, for example the export statement. Remember, statements can only be used in procedures (macros), while functions can be used in any formula in a form, procedure, or in the design chaet

Exhibit F - Backus Declaration

Real Users Talk About Panorama



"I'm a musician, not a computer expert. I want to spend my time writing new compositions for my next recording, not designing databases or doing bookeeping. But I do need to keep my small record label organized, and with Panorama it was easy to set up everything I needed: invoicing, billing, labels, letters, reminders, and most importantly, tracking sales. Panorama's step-by-step directions made it easy to do everything myself — creating a new database takes only seconds! Panorama's ease of use

and speed make my life so much easier. I recommend it to anyone running a business of any size." - Scott August, Cedar Mesa Music, Hollywood, CA



"My personal database needs were small in the beginning but over the last 24 years using OverVUE and Panorama, the projects have grown by leaps and bounds. My career as a database programmer has allowed me to use Panorama as the solution for a myriad of business needs including doctors, lawyers, hotels, jewelry stores, realtors, aircraft manufacturers, and many others. The best part of using Panorama has been that in all those years, I can't seem to ever remember having to tell a client, 'It can't be done.' Using Panorama to make the computers 'dance and sing' has always been such an

enjoyable way to make a living." - Robert Ameeti, Irvine, CA



"Here at the Boulder County Treasurer's Office we have access to a host of software tools, but we had one gnarly problem that nothing could solve — except Panorama. Our bank sends us a daily report that needs to be processed, but the report format they send us is all mixed up. Only Panorama could extract the information, reformat it into a standard format, and merge it with information from our in-house database so we could automatically post payments. Before Panorama: at least an hour a day of tedious error prone hand entry. After Panorama: about 10 mintues to accurately post 50-100 accounts

each day. The staff thinks I'm a hero. Thanks!" - Steve Elliot, Boulder County Chief Deputy Treasurer, Boulder, CO



"Panorama is absolutely a top notch database manager in all respects. It runs flawlessly, it is stable, it is easy enough for a beginner to use and so programmable that it will challenge the best developers to fully use its power. Databases I have created range in complexity from a simple flat file project tracker to a very complex Panorama relational database. Over the years I have done database development with competing database managers including Oracle, 4D, Filemaker, and a few others, but I have always preferred to use Panorama. I can finish the job faster, ending with a highly funtional system. I have

developed Panorama databases which manipulate millions of records as well as databases holding only a few records — all with equal success." - Jack Stewart, Motorola, Phoenix, AZ



"Databases are supposed to be work, not entertainment, but when I first got Panorama I had so much fun I stayed up way too late for days on end! The speed and ability to fearlessly explore made Panorama the software equivalent of a page-turner I just couldn't put down. If I get in a jam I just Revert to Saved and start over again — why doesn't every database let you do that? Oh yeah, when I finished playing I got my work done too, and faster and more accurately than ever before." - Mark de Jong, Poway, CA



"My background is as a military and commercial pilot. Becoming a database guru was not on the flight plan, but Panorama made it easy. I first used Panorama to help with volunteer work — simple projects like conference registrations. I then stepped up to running high school track meets. Coaches loved Panorama because the results came in so quickly! I liked it becase it was easy and fast, and let me do whatever I needed. I slowly added more features to my Panorama databases and eventually sold some as commercial programs. Now I help run big college track meets all over the country." - Peter Gurerrini,

EZMeets.com, Santa Rosa, CA



"Panorama is an absolute pleasure to work with and has spoiled me immensely. On occasion I have to work with the competition's software and each time, I come away frustrated. Panorama so simply and elegantly does what others cannot. Panorama is blindingly fast and its programming language has become so rich over the many years of development that I can't think of a database solution that can't be handled by this powerhouse." - Glenn Kowalski (Apple Consultants Network), MacLab, Takoma Park, MD



"I have once again realized what a joy it is to work with Panorama. This past week has been spent updating two old projects from several years ago — one in Filemaker, the other in Panorama. Panorama makes it so easy to examine database structure and program code. It was easy to see what needed to be worked on. I could easily add code from more recent projects to my Panorama project. I have all but finished my Panorama project, while the Filemaker project is still in the document and explain phase." • Eric Bolden, University of Wisconsin (Madison), WI



"As a successful photographer with a growing business, I turned to Panorama to manage my client lists, process invoices and track my images. With Panorama's help my business continued to grow. Almost immediately other photographers wanted copies of what I had built and a new business was born. With features other databases couldn't match, my 4/18/2009 1:25 PM

Panorama vs. FileMaker

Allthough many features are similar, Panorama's RAM based database engine is fundamentally different from FileMaker's disk based system. In fact, the difference is so large that MacWorld magazine stated that "Panorama may be the ultimate relational database for your desktop... Interfaces, features, and performance blow FileMaker Pro out of the water," while TidBITS.com stated that "Panorama is the best general database program I've ever used." Read the comparisons below, download and try out the test drive and judge for yourself! (Note: Many, but not all of these comparisons also apply to other disk based databases including 4th Dimension and Microsoft Access.)

RAM vs. Disk

The fundamental, overriding difference between Panorama and FileMaker is that Panorama is RAM based while FileMaker is disk based. When you open a Panorama database the entire database, including all of the data, is loaded from the disk into the computer's RAM. From then on Panorama doesn't use the disk at all (until you use the Save command). All searching, sorting, editing, and everything else occurs directly in your computer's high speed RAM.

FileMaker, on the other hand, is disk based. Every time you edit a field, sort, search, or perform any other operation it must access the disk. Unlike RAM, the disk is a mechanical device with parts that actually move each time you access the disk. This makes disk access thousands of times slower than RAM access.

Panorama uses the RAM you give it very efficiently. Because Panorama doesn't use indexes (see below) Panorama databases are very small compared to FileMaker (typically six to ten times smaller). For example the Panorama test drive includes a typical contacts database with 10,000 records and about two dozen fields — this database is only 2.2 megabytes! Typically a Panorama database is about the same size as an ASCII text file containing the same data.

No Indexes vs. Indexes

You might be suprised to know that when you ask FlieMaker to search or sort it does not actually search or sort the data itself. Instead it searches or sorts a complex structure it has built called an "index." An index is a special directory that contains hints for finding items quickly. A database index performs much the same function as an index at the end of a textbook. Instead of searching the entire book page-by-page you find the entry in the index and then jump directly to the correct page. FileMaker uses a similar index system to allow it to search or sort a large database in a second or two instead of in minutes or hours.

Unlike FileMaker, **Panorama doesn't use indexes**. Because RAM is so fast, Panorama can actually perform searches or sorts using the brute force approach, the equivalent of searching a book by reading all of the pages (but very, very quickly). Essentially Panorama is the ultimate speed reader. Although indexes can help a database search and sort faster, they also come with some very significant drawbacks.

• Indexes are very large. Unlike a textbook index which is only a few pages, databases indexes are often much larger than the actual data itself. Since Panorama doesn't use indexes, the database size is much smaller.

- Indexes have a very complicated structure that must be updated any time the database is modified. As your database gets larger this structure gets more complex, so updating the structure takes longer and longer each time you edit the database. In addition this complex structure is prone to corruption, which explains why FileMaker needs a command to rebuild corrupted databases. It's actually not the database itself which is corrupted, but the index. Since Panorama doesn't use indexes, editing the database doesn't get slower as you add more records, and the index can't get corrupted because there wasn't any index in the first place.
- Even though the indexes are large they actually don't contain all of the information in the database (most of the index space is taken up with hints to make searching faster). Since FileMaker is searching the index, not the database, this means that many useful search queries are impossible. Since Panorama doesn't use indexes it can perform any search you can think of, including phonetic searches (sounds like "alan"), partial matches, comparisons between fields (Price is more than twice the P/E ratio), searching for fields that contain only letters, only numbers, or some other combination, searching all fields at once, even live keystroke-by-keystroke searches

 Watch Denta (like ITunes).

Active Summaries vs. Dead Reports Watth Demo 6.

All databases can calculate summaries with subtotals, counts, averages, etc. However, Panorama and FileMaker take very different approaches to this task. FileMaker calculates summaries as part of a report. The end result is a piece of paper containing the subtotals, averages, etc.

Panorama treats summary calculation and printing as separate tasks. When you ask Panorama to calculate summaries, no printing is involved. Instead, Panorama temporarily reorganizes the database into an outline structure containing the summaries as well as the original data. You can collapse the outline to see the overal "big picture,", then expand selected elements of the outline to zero in on just the level of detail you need to accomplish your task. You can even rank the summaries to reveal which categories are top performers and which are laggards. (Of course you can also print the summaries on paper as well if necessary.)

In addition to active summaries Panorama's other analysis tools include 2D charts and crosstab tables (sometimes called pivot tables).

In Place Formulas vs. Calculated Fields

For reasons that are a complete mystery to us, FileMaker requires all calculations to be stored in a central repository of fields, including so called "calculated fields." Before you can use a calculation you have to define it in the field definition dialog, and if you want to change the calculation you have to go back to that dialog and find it among all the others. Panorama doesn't use calculated fields (all database fields are actual fields that contain actual data). If you need to display a calculation on a form (layout) you can just set it up right there. There is no central repository for calculations, you just set them up as you need them where you need them.

Exhibit H - Backus Declaration - page 1

From ProVue Home Page - www.provue.com

Panorama Enterprise Server is the first totally RAM based general purpose database server for Mac OS X. This server allows lightning fast RAM based databases to be shared by multiple users with full record locking. These users may be on a local network or spread across the Internet (or even without a network at all, see below). The Panorama Enterprise Server can also be used to create ultrafest web database applications. Unlike traditional client/server systems that sequester all of the data on a central server, the Panorama Enterprise system uses a "mesh" erchitecture to distribute RAM based copies of more...

Download Now

Release notes not currently available at developer site nor in download

Mac OS X 10.4 or later.

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ProVUE Development, Inc.

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Applications

Demo

24 Mar 2009

PPC/Intel



Write A Review | 3 Reviews / 2 Comments

Exhibit H - Backus Declaration - page 2

from ProVue Home Page - www.provue.com

Here at ProVUE Development we've been specializing in powerful database applications for the Macintosh since 1984 (and for Windows since 2001). Our "secret weapon" is the unique RAM based database technology all our products have used — a complete break from the disk based database technology of the past. There's nothing else even close — Panorama's RAM based speed gives you the power you need to rapidly react to changing needs and opportunities, while the Panorama Enterprise Server product extends the benefits of RAM technology to entire networks. Panorama has a two decade track record of safety and efficiently handling information for large and small organizations all over the world. Whatever your application — from accounting to medical research, from church directories to NCAA track meets to blockbuster Hollywood productions, Panorama can handle it faster and more efficiently. When you need to organize and understand data, you need Panorama.

Exhibit H - Backus Declaration - page 3

from ProVue Home Page - www.provue.com

For over 25 years ProVUE Development has had some of the most loyal users on the planet, as reflected by Panorama 5.5's five star rating on both <u>VersionTracker</u> and <u>MacUpdate</u>. To read some "real world" stories of typical Panorama users see <u>Panorama User Testimonials</u>, <u>Panorama Enterprise Testimonials</u> and <u>The Making of 300</u>. You can also get involved interactively with the Panorama user community using our <u>Panorama QNA</u> on-line discussion forum. If you're already a Panorama users thank you for your support, and we'll continue to work every day to earn that loyalty in the decades to come.

Why Does a RAM Based Database Make a Difference?

Did you know that most popular database programs still use technology originally invented for mainframe computers decades ago? In the dawn of the computer age even

these colossal giants had only tiny amounts of RAM available. Though electronic RAM memory is thousands of times faster than mechanically based disk drives, early programmers had no choice — in those days only disk drives had the capacity to get serious database jobs done. Some programmers dreamed of using lightning fast RAM technology to make databases far more powerful and flexible, but with the technology of the time that idea was still in the realm of science fiction.



Today those mainframe dinosaurs are long gone, and even budget PCs have RAM capacity far in excess of typical database needs. With efficient storage algorithms, over 10,000 records can be stored per megabyte of RAM — that's over a million records in 100 megabytes! Panorama is the first full featured database software to seize this incredible opportunity. Panorama is fully RAM based, a complete break from the disk based technology



of a bygone era. The payoff is huge speed gains across the board — not double or triple, but in many cases actually thousands of times faster than traditional disk based programs. You'll feel like you've broken the sound barrier right at your desk! There is no magic or fancy programming involved — It's simply the difference between mechanical and electronic storage technology.

When every second counts, count on Panorama to make sure that deadlines are mat with precision. Panorama's speed gives you the

power you need to rapidly react to changing needs and opportunities. You'll be confident that not only is the job done on time, but that every detail is perfect — no frustrating half-baked patch jobs, no tearing your hair out when specifications change, no cramming up to the last minute. Every detail is in place, in order, and up to date. Start planning now — what will you do with your free evenings and weekends?

Ready to try the database fast lane? Download a fully functional Panorama trial and see for yourself!



"I knew going into my project that I didn't have a clue what the database would look like in a year. And not only could I not predict what I was going to want, I didn't have time either to guess at what might be important or to spend a lot of time creating a database that performed tasks I didn't need. In short, I was flying low, fast, and blind,

and I needed a highly maneuverable airplane to skim through my data. In a word: Panorama. It's both powerful and deep. Each month I have enhanced the database a bit more as I learned more about what I wanted." - Adam Engst, Publisher, Take Control Books



"Panorama has aiready been very useful this week, dealing easily with a 2-1/2 million record database (with over one hundred fields) that brings FileMaker to its knees. I haven't worked the tutorial yet, but I have been able to figure everything out so far by trying things and referring to the documentation as needed. Nice job." - David Fann, University of Florida (Panorama user for Six days when this testimonial was written!)



"I'm sure there's at least \$20,000 in software on my laptop, but Panorama continues to be — by far — my all-time favorite application and the best software investment I have ever made. I call Panorama my "secret weapon." No matter what other data manipulation tool someone might use, Windows, UNIX, mainframe, or Mac, I truly believe that Panorama should be in every serious computer user's toolkit. It is

extremely approachable useful to newbles to minutes, but also tremendously

Seeing the Light with Panorama

by Matt Neuburg 🖂

Let me not beat around the bush. ProVue Panorama is the best general database program I've ever used.

http://www.provue.com/panorama.html

Granted, I may not be a typical database user. I'm not running an "enterprise solution" - I just want my information kept safe and accessible. But for such purposes I'm so happy with Panorama that I have moved all my data into it, reproducing all the functionality I previously achieved using FileMaker, Helix, and HyperCard. My address book, my inventories of books and LPs, my diary, even my system for archiving email digests as individual messages and reading them by thread - all these are now Panorama files. Plus, Panorama is externally scriptable, so I'm using it to store catalog data and then driving it with Frontier to transform that data into Web pages.

http://db.tidbits.com/series/1168>
http://db.tidbits.com/article/05814
http://db.tidbits.com/series/1134>

Panorama has been available on the Mac since 1988 (or 1984 if you count its predecessor, OverVue); but I don't think I'd have liked earlier versions as much. The new version, Panorama 4, includes many changes that bring it to a state of pleasing maturity. It is now PowerPC-native and cross-platform with Windows. The recent maintenance release, 4.0.1, incorporates some further features and fixes some important bugs.

The Big Picture — Panorama is RAM-based: it holds open databases entirely in memory. Obviously if you haven't enough memory to hold your data, you can't use Panorama. But RAM is now cheap and plentiful, and Panorama doesn't waste it: a database of half a million names and addresses will work fine if you give Panorama 32 MB. And the RAM-based approach has three great virtues:

- Speed. Access to data is instant; sorting, or running through all your data gathering information or performing some calculated change on a field, is lightning-fast.
- Simplicity. The speed means there's no need for indexes; this in turn contributes to speed, as there's no double-bookkeeping when a value is changed. A database file consists simply of its data, plus some display information in a compact binary form. Panorama's files are therefore small (typically less than half the size of the same information kept in FileMaker). They're also safe I can see my data with a text editor, and could extract it in an emergency.
- Volatility. Think how many times you've accidentally changed some data in FileMaker, only to discover it has written the change out to disk. Panorama writes nothing to disk until you say so. Combined with Panorama's raw speed, this encourages free experimentation if something goes wrong, you can always revert to the saved version. So volatility is a virtue. Indeed, volatile manipulation of data is a standard Panorama technique; you might add a field, fill it with data, do something based on the results, and delete the field again, without ever saving.